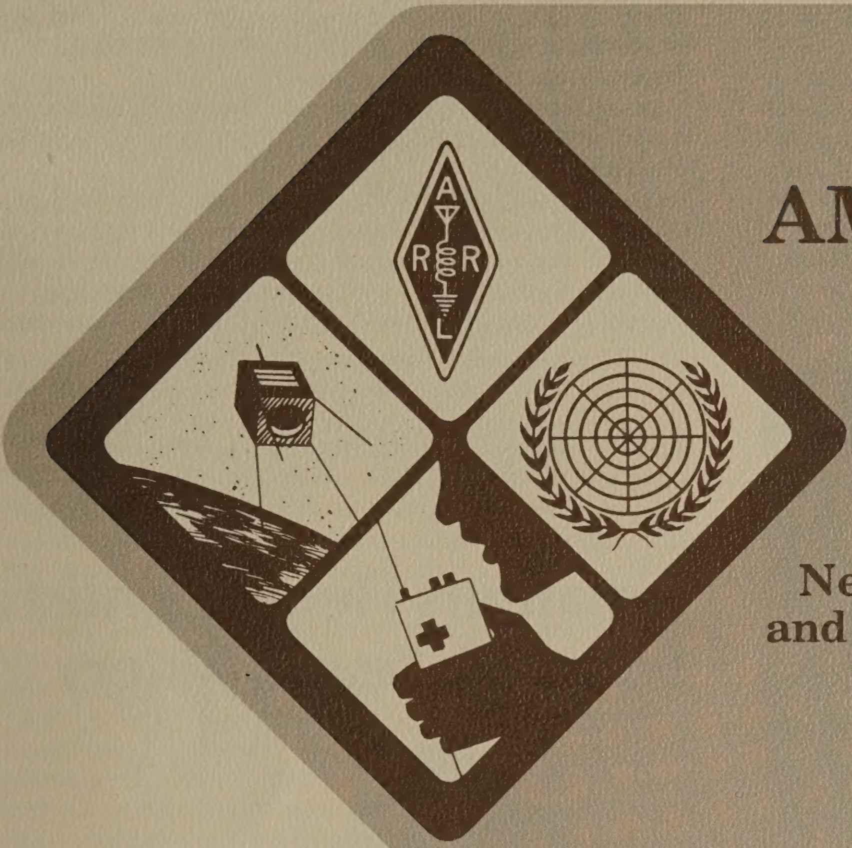

AMATEURADIO

News of the Amateur Radio and Amateur Satellite Services

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Ham Radio Spells Relief For Universal Allergy Sufferer

Bill Savada, of Falcon Heights, Texas, knows what isolation means.

Savada, in his mid-30's, lives alone in a porcelainized stainless steel trailer in a sparsely inhabited corner of Texas. He doesn't want to live there, but has to because living in a city could kill him.

Savada has universal allergy, which brings on violent, often dangerous reactions when he is exposed to everyday materials most people take for granted, such as synthetic clothing, plastics, pollen and contaminants in the air and water.

Because of his allergy, Savada's contacts with the outside world are few and short-lived. Visitors must wear only cotton clothing, and must not use soap, perfume and similar items for several days before coming in contact with Savada. Even then, Savada cannot be in personal contact with others for more than a few minutes at a time.

But now Savada's isolation is a little more tolerable because he is able to meet and talk with new friends the world over through Amateur Radio, a hobby made possible to Savada by the Courage Handi-Ham System in Golden Valley, Minnesota. Established over 15 years ago, Courage Handi-Ham is an international organization of handicapped and able-bodied radio amateurs which provides training materials, instruction, specially designed radio equipment and various other services to handicapped persons who want to become Amateur Radio operators.

Savada's involvement with Courage Handi-Ham began in May 1979 when the center's director, Bruce Humphrys, became aware of Savada's dilemma.

"Bill had written and said that he would like to become an Amateur Radio operator," recalls Humphrys. "He said he already had his Novice class license, but was unable to operate regular equipment because he was allergic to the plastic found in most rigs."

So, the Handi-Ham staff set out to build a rig that Savada could use. After consulting Savada's doctors, radio amateurs at the center designed and built a stainless steel container with stainless steel controls (stainless steel is one of a few materials Savada is not allergic to) and sealed an Amateur Radio transceiver inside of it. In March 1980 the radio equipment was completed and shipped to Savada.

Then came the acid test. At 11 a.m. on April 1, 1980, Humphrys waited nervously by his radio, listening for Savada's first contact. Suddenly, a slow, steady stream of Morse code came over Humphry's receiver. It was Savada, signaling the end of his total isolation.

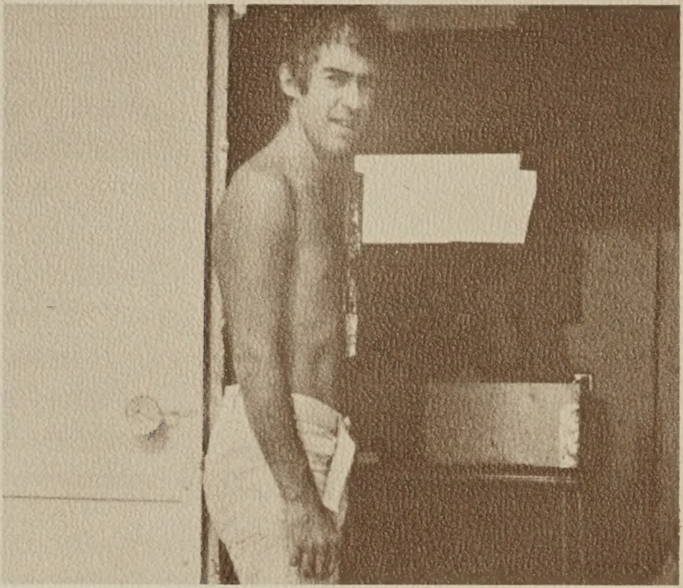
(Continued next page)

Humphrys says that after that first contact Savada telephoned to tell him the good news.

"He was as excited as anyone could be," remembers Humphrys. "He told me the rig worked fine, he wasn't reacting to it and he was making contacts with radio amateurs all over the world."

And so, through Amateur Radio and the Courage Handi-Ham System, the rest of the world was brought a little closer to an isolated trailer in a sparsely inhabited corner of the Texas wilderness.

Courtesy of Courage Handi-Ham



Bill Savada, a victim of "universal allergy," is able to make his isolation a little more tolerable by using Amateur Radio to meet new friends all over the world. *(photo courtesy Courage Handi-Ham)*

Clear Skies For Ham-CB Pact

Representatives from seven Radio Emergency Associated Citizens Teams (REACT) and the Weather Amateur Radio Net (WARN) made CB and Ham radio history recently when they announced plans for a mutual assistance pact.

This confederation of REACT and WARN groups marks the first time in this country that Citizens Band and Amateur Radio groups have formally joined in support of the National Weather Service (NWS), according to a NWS spokesman in Cincinnati, Ohio.

The weather watch pact, which was announced September 6, will cover Indiana, Kentucky and Ohio. According to the agreement, telephone numbers of key REACT personnel were shared with WARN officials, who in turn provided their numbers to the REACT groups.

When a REACT observer spots a significant weather change that should be reported to NWS, he telephones a WARN official who then radios the report to the NWS operations center. A REACT member who is also a ham can simply switch to his amateur radio and send the report directly to NWS. Information from NWS to REACT groups follows a reverse route.

In all instances, conventional communications lines, which often can be disrupted during storms, could be bypassed.

As important as the REACT-WARN pact is in itself, the new agreement could also mark the beginning of a new spirit of cooperation between the Citizens Band and Amateur Radio public service groups, a move sure to benefit the many thousands who live in the tri-state area.

Courtesy of Jim Weaver, The Cincinnati Enquirer.

Amateurs Help Scientists Solve 50-Year Mystery

According to a report in the October issue of the monthly Amateur Radio journal, *QST*, radio amateurs provided much of the information which helped explain an atmospheric phenomenon that had baffled scientists for more than 50 years.

In an article entitled, "The Magnetospheric Echo Box — A Type of Long-Delayed Echo Explained," authors O.G. Villard, Jr., D.B. Muldrew and F.W. Waxham, Jr., reported that scientists, using recordings, observations and other data supplied by amateur operators, have discovered the origin of one type of long-delayed echoes (LDEs), which are characterized by delays of less than one second.

LDEs, scientists found, occur when radio waves, which normally reflect from the bottom of the earth's ionosphere, become trapped in the ionosphere in ducts, or depressions, which are created by moving clouds of charged particles pressing against portions of the earth's magnetic field. Once inside, the radio waves bounce around, travelling from one end of the earth to another, causing the operators receiving the signals to hear distorted duplicates of the original transmission.

Because LDEs occur so infrequently, the article said, radio amateurs, who operate on various frequencies from many different locations around the world, were the best source of data on which scientists could test their theories.

Amateur operators are presently helping scientists gather data on long-delayed echoes which have delays of more than one second.

LDEs were first reported in 1927.

Solar-Powered Ham Radio Island's Link To World

The high cost of fuel oil nearly forced Tom Christian, one of the world's best known Amateur ("ham") Radio operators, off the air recently — until a fellow amateur came to the rescue with a solar power unit.

Christian lives on Pitcairn Island in the Pacific with 66 other residents, most of whom, like Christian, are direct descendants of the mutinous crew of the H.M.S. Bounty made famous in the book and movie, "Mutiny on the Bounty."

Christian's radio is the island's only link with the outside world and to go off the air would have literally cut the island's lifeline. By late last year, the cost of fuel oil to run the island's diesel generators had risen to nearly $200 per barrel. At that price, the islanders could only afford to have electrical power about two hours a day.

Rising fuel cost and the fact that only a few ships call at the island each year have been frequent subjects of conversation between Christian and other hams who "line up" on the airwaves waiting to talk to him. One of those hams is Thorn Mayes of Phoenix, Arizona, who was planning to visit Pitcairn and wanted to help Christian with his power problem. Many other hams from around the world had been sending Christian money to help buy oil and, thus, stay on the air.

Solar energy seemed like a more reasonable long-term solution to the problem in Mayes's mind, so he contacted Motorola, Inc. and inquired if they would be willing to help out. Solar power specialists there consented and three 2-foot solar power modules were assembled and packaged so Mayes could take them to Christian.

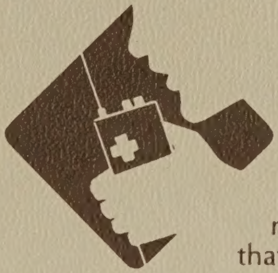
Tom Christian, a direct descendant of Fletcher Christian, adjusts a solar power module on his Pitcairn Island ham radio antenna tower. The solar assembly is an alternative power source to the island's costly diesel-powered generator. *(photo courtesy Motorola, Inc.)*

Mayes left Phoenix in October 1979 and a month later the three solar panels were installed on Christian's antenna tower on Pitcairn. The modules contain 36 solid-state photovoltaic cells which convert sunlight directly into electricity. Christian can store the sun-generated power in batteries which allow him to use his ham rig at most anytime of the day or night.

Christian is hoping that all the island's electrical needs eventually can be provided through solar power. Now, the cost of a solar power unit of that size is more than the islanders can afford. But maybe one day, Pitcairn will get all of its power from electricity from the sun.

Courtesy of Motorola, Inc.

Amateur Radio At Broadcast Stations



An FCC advisory committee has recommended that the Commission amend its rules to ensure that Amateur Radio stations are allowed as permanent installations at commercial broadcast facilities.

The Amateur Radio subcommittee of the National Industry Advisory Committee (NIAC) says there should be no question that Amateur Radio stations can relay information vital to public safety for broadcast stations operating under the Emergency Broadcast System (EBS).

According to NIAC, present rules are unclear whether, at broadcast facilities, the installation or operation of amateur equipment by licensed operators is allowed or not. The committee said that the vagueness of the rules might discourage commercial broadcast stations from using amateur communications for fear of conflicting with the non-commercial status of the Amateur Radio Service.

NIAC proposed FCC amend its rules to include the installation and operation of an amateur station at commercial broadcast facilities for the limited purpose of supplying emergency information during an official activation of the EBS.

Citing the vital role radio amateurs have played in providing emergency communications in the past when conventional broadcast facilities have been inoperative, NIAC said that "the purpose of Amateur Radio and its vast resources of trained radio operators can be utilized to much greater effectiveness than is now the case during officially declared emergencies."

ALONG LEAGUE LINES

During the last several months, AMATEURADIO has shown how ham radio performs in its most important role of providing viable public service — during hurricanes, earthquakes and even volcanic eruptions. But, there exists another element of the hobby, and that is **appeal**. It's the thrill of talking to a ham in a country on the other side of the globe, the excitement of renewing an acquaintance across the country and the enjoyment of traveling to famous and far-away places without ever leaving your "shack".

For handicapped amateurs, though, the appeal is inherently greater. For individuals restricted to the confines of a bed and four walls, Amateur Radio can be a vehicle for communication, fraternity and fellowship with other human beings in the outside world. There are hundreds of handicapped amateurs who enjoy the hobby every day. They have found that with a little perseverance, patience and practice, a ham license and its accompanying rewards are readily attainable.

1981 is the International Year of the Disabled — Amateur Radio will be exploring new and better ways in which the handicapped can enjoy the benefits of the hobby. An international service organization devoted exclusively to bringing the excitement of ham radio to persons with physical, sight and hearing handicaps will continue to play a major role. This organization, the Courage HANDI-HAM System, provides educational material with close supervision and encouragement, amateur equipment loans and specially adapted devices. The System currently serves over 1,000 people worldwide. The HANDI-HAMS also coordinate on-the-air activities to promote a spirit of comaraderie and fraternity among handicapped and able-bodied amateurs alike.

Perhaps one of the most unique and truly therapeutic resources, Amateur Radio continues to hold a profound appeal for individuals with physical handicaps. It's a means of people-to-people contact on a basis of absolute equality — two minds communicating and relating on a level of mutual and equal empathy. That's **appeal**.

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